MAY - 2 2006

Municipality/Organization: Town of Durham, NH

EPA NPDES Permit Number: NHR041006

MaDEP Transmittal Number: W-

Annual Report Number & Reporting Period: **No. 3: March 05-April 06**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: David Cedarholm Title: Town Engineer

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

Printed Name: David Cedarholm

Title: Town Engineer

Date: April 28, 2006

Part II. Self-Assessment

The Town of Durham, New Hampshire has complied with most of our goals for 2005 with the exception of a few items which were adjusted to Town conditions. The following is an overview of all six minimum control measures.

Public Education and Outreach - Over the passed year the Town has continued to take an active role in educating local government staff and citizens about the New Stormwater II regulations, an public responsibility with regard to stormwater management. We continue to coordinate with the University of New Hampshire (UNH) on the distribution of public information, and educating residents and student populations through our biannual newsletter.

Public Participation/Involvement – The Town has become more involved with local watershed associations, committees, conservation commissions, and regional planning commissions that review and report on conditions and status of stormwater management within the Town and region. These groups are instrumental in monitoring the watersheds that encompass the Town.

Illicit Discharge Detection and Elimination – Durham continues to develop and update our stormwater collection system mapping. In association with the Seacoast Stormwater Coalition and the New Hampshire Department of Environmental Services, the Town is helping to develop a Stormwater Management SOP Manual entitled "Guidelines and SOPs for Illicit discharge Detection and Elimination and Pollution Prevention/Good Housekeeping for Storm Water Phase II Communities in New Hampshire." This document will help the Town and region further develop plans for illicit discharge detection and elimination.

Construction Site Storm Water Runoff Control –Durham continues to develop its stormwater management system which is primarily GIS based. We tracking catch basin cleaning using GIS and will continue to expand its capabilities. We continue to review ordinance information an work to collect construction BMP data. We are working toward testing the effectiveness of the draft ordinance on new development. Training of Town staff on BMPs and proper implementation of stormwater controls is ongoing. The stormwater management ordinance is expected to be finalized by late this year or next.

Post-Construction Runoff Control – Durham continues to work with the newly established UNH Stormwater Center which is performing innovative research on multiple types of construction BMPs and evaluating there performances. The preliminary results look promising and more results are forthcoming.

Pollution Prevention/Good Housekeeping – The Town continues to expand our stormwater mapping utilizing GIS and GPS instrumentation, and are following through with our three year rotation maintenance plan in which approximately one-third of our stormwater collection system is cleaned and maintained each year. Approximately 175 catch basins were cleaned in 2004 and another 175 were cleaned in 2005. The remaining 175 catch basins are on schedule to be cleaned in 2006. The portion of the collection system cleaned is in 2004 is scheduled for another cleaning cycle in 2007. The Town maintains an aggressive street sweeping program in which all streets are swept at least quarterly. In addition, all repairs and maintenance of stormwater structures within the MS4 area are performed with updated BMPs and modern materials.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Develop Educational Resources	Michael Lynch Public Works Director		No new educational resources where developed t his year	None
2 Revised X	Implement Educational Activities	Michael Lynch Public Works Director	Air of Stormwater video on local cable network	A regular column entitled "Stormwater Tips" now appears in the newsletter published by the Town and sent out to all Town residents approximately 4 times per year	Continuation of publishing "Stormwater Tips" in DPW Newsletter
3 Revised X	Storm Drain Stenciling	Michael Lynch Public Works Director	Apply labels or stencils on or near catch basins.	Do to the lack of longevity on the stenciling, Durham experiment with attaching 3" diameter aluminum "No Dumping-Drains to River" medallions to a dozen catch basins grates.	Due to the success of the medallion experiment, the Town plans to install more medallions on catch basins throughout Town and possibly organize a new stenciling effort.
4 Revised X	Stormwater II Informational Flier	Michael Lynch Public Works Director	Stormwater article as part of newsletter	A regular column entitled "Stormwater Tips" now appears in the newsletter published by the Public Works and sent out to all Town residents at least 2 times per year	Continue to publish "Stormwater Tips" in the DPW Newsletter.
5 Revised	Stormwater Video Airing on Town's Cable Channel	David Cedarholm Town Engineer	Air stormwater management videos on local cable access channel	Videos were aired on local cable access channel during two rounds or showings that last approximately 1 week each round	Continue to air videos over the next year and seek out new videos.

2. Public Participation/Involvement

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Create Citizen Committee/Organization	David Cedarholm Town Engineer	Actively participate on local Watershed Associations	Town Engineer actively participates in development of our Citizen Groups, Oyster River Watershed Association (ORWA) and is voting member of the Bellamy-Oyster River Watershed Protection Partnership (BORPP) and the Seacoast Stormwater Coalition.	Continue to play active roles in ORWA and BORPP
2 Revised X	Establish a Relationship with UNH	Michael Lynch Public Works Director	Work with UNH and residents on catch basin identification	Durham and UNH is experimenting with attaching 3" diameter aluminum "No Dumping-Drains to River" medallions to a dozen catch basins grates.	The Town and UNH plan to install more medallions on catch basins throughout Town and possibly organize a new stenciling effort.
3 Revised X	Establish Public Storm Water Literature for Public Distribution	Michael Lynch Public Works Director	Stormwater article as part of newsletter	A regular column entitled "Stormwater Tips" now appears in the newsletter published by the Public Works and sent out to all Town residents at least 2 times per year.	Continue to publish "Stormwater Tips" in the DPW Newsletter.
4 Revised X	Public Meeting – Town Council or Board Presentation	Michael Lynch Public Works Director	Town Council Presentation	No presentation this year	Organize another presentation this coming year.
5 Revised	Community Watershed Monitoring Clean-ups	Michael Lynch Public Works Director	Coordinate watershed walks and clean-ups	On a monthly basin the ORWA performs river walks along some portion of the Oyster River in an effort to monitor conditions. River and coastal clean-ups sponsored by various groups are held as annual events.	Continue to support local organizations that sponsor cleanups.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Stormwater Map	David Cedarholm Town Engineer	1) Complete map implement within GIS system.	This goal is 95% complete. Catch Basins and most outfalls are located within the MS4 area.	Continue to locate all piping and outfalls this year.
2 Revised X	Stormwater Ordinance	David Cedarholm Town Engineer	Durham has developed a Draft Ordinance that is currently being revised.	The Ordinance has passed Planning Board review and remains under Legal review and revision.	Finalize and approve ordinance at Town Council level.
3 Revised X	Implement an Information Management System for Tracking Illicit Discharges	David Cedarholm Town Engineer	Complete stormwater mapping inventory and track illicit discharges through GIS system	Monitored illicit discharges during system maintenance and catch basins cleanings and manage data in our GIS system including tracking basin cleaning intervals and basin conditions.	Continue updating data and tracking of the stormwater system condition.
4 Revised X	Training of Employees	David Cedarholm Town Engineer	BMP implementation training of staff	Ongoing training of personnel on the implementation of stormwater BMPs and illicit detection methods.	Attend new workshops offered through the UNH Stormwater Training Center to educate primary personnel.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Collect Ordinance / Regulatory Information	Jim Campbell Town Planner	Draft ordinance has been developed and is under Legal review	Encouraged Town Boards and officials to accept draft ordinance.	Plan to finalize ordinance and gain acceptance by the Town Boards.
2 Revised X	Informational Management System	David Cedarholm Town Engineer	Maintain and update GIS based mapping and track catch basin cleaning and street sweeping.	Expanded our data input to our system regarding catch basins cleaning and maintaining stormwater controls.	Continue to use our data based GIS system to locate and track possible illicit discharge locations.
2 Revised X	Finalize Ordinance/Regulatory Mechanism	Jim Campbell Town Planner	Draft ordinance has been developed and is under Legal review	Encouraged Town Boards and officials to accept draft ordinance.	Plan to finalize ordinance and gain acceptance by the Town Boards.
4 Revised	Staff Training	David Cedarholm Town Engineer	The Town officials Code Enforcement, Planning and Town Engineer to attend training workshops on stormwater	Town staff annually attends stormwater education workshops as well as informing staff of information received.	Continue to educate Town staff and stay current with new developments in stormwater management.

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Identification of BMPs	David Cedarholm Town Engineer	Develop possible BMPs for use within the Town	Implemented a variety of BMPs on Town projects and evaluating the efficiency of each.	Continue to evaluate BMPs that are effective in our geographical area.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1 Revised X	Develop Pollution Prevention Plan	Michael Lynch Public Works Director	Actively recycling efforts to include a committee that reviews transfer station activities generates a recycling news letters.	• Develop a draft NH Stormwater Management Manual with the Seacoast Stormwater Coalition and NHDES. • Clean catch basins on a three year rotation. • Increase Sweeping in MS4 area from twice a year to quarterly and more on heavy use areas.	• Continue rotational catch basin cleaning schedule. • Utilized the recently established UNH Storwater Center for assistance in developing formal Pollution Prevention Plan for all municipal operations. • Finalize draft NH Stormwater Management SOP Manual with the Seacoast Stormwater Coalition and NHDES.
2 Revised X	Employee Training Materials	Director for Operations Doug Bullen	Provide staff with educational opportunities	Continue collecting and distributing stormwater information to Town staff and provide ongoing in-house staff training on BMP effectiveness.	Obtain updated materials through the NH Stormwater Center here in Durham, and supply Town staff with stormwater management information.
3 Revised	Informational Management Systems	David Cedarholm Town Engineer	Maintain and updated GIS base mapping, track structure maintenance, and management BMPs.	We hope to expand our data input to our system this year to complete it in regards to catch basins and outfalls.	We will continue to use our data based GIS system to locate and define possible illicit discharge locations.
4 Revised	Employee Training	David Cedarholm Town Engineer	Provide staff with more educational opportunities	Continue collecting and distributing stormwater information to Town staff and provide ongoing in-house staff training on BMP implementation	Take part in workshops through the NH Stormwater Center here in Durham, and supply Town staff with stormwater management information.

Part IV. Summary of Information Collected and Analyzed

No data has been collected to date.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures	($)	10,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	80 %
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y Not logged
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	71 house holds
▪ material collected	(tons or gal)	Not available
School curricula implemented	(y/n)	Y Oyster River Assoc.

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X	X	
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	70
Estimated or actual number of outfalls	(#)	200
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	0
▪ GIS	(%)	100
Outfalls inspected/screened	(# or %)	0
Illicit discharges identified	(#)	3
Illicit connections removed	(#) (est. gpd)	2
% of population on sewer	(%)	30
% of population on septic systems	(%)	70

Construction

Number of construction starts (>1-acre)	(#)	Not available
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	Not available
Site inspections completed	(# or %)	50%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	0
Site inspections completed	(# or %)	0
Estimated volume of stormwater recharged	(gpy)	0

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1 every third yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1 every third yr
Total number of structures cleaned	(#)	350
Storm drain cleaned	(LF or mi.)	600 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	75
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		beneficial use
Cost of screenings disposal	($)	N/A

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	3+
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3
Qty. of sand/debris collected by sweeping	(lbs. or tons)	Not available
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	beneficial use
Cost of sweepings disposal	($)	N/A
Vacuum street sweepers purchased/leased	(#)	1 owned
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	20 80
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	Not available
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Y Second Shed